

ABSTRACT OF THE DISCLOSURE

The present invention relates to methods of making large spin blanks out of pieces of aluminum sheet or plate joined by friction stir welding to provide plate blank sizes greater than 156 inch (396 cm) in diameter. Blank sizes greater than 209 inch diameter enable manufacturing possibilities for large one-piece spun parts instead of constructing large structures from pieces. This also applies to sheet, except that the maximum width obtainable is 139 inches (353 cm). The availability of large blank sizes, particularly for sheet, permits the use of traditional spinning where bending is the predominant method of metal movement rather than stretching and spinning. As the present invention is a very cost effective approach, it provides a method for producing significantly more economical spin blanks between 156 and 209 inches in diameter than are obtainable for a single piece blank.